Amendment Under 37 C.F.R. § 1.116 U.S. Application No.: 10/073,347

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

- 1. (previously presented): A liquid jetting apparatus comprising;
- a container-setting portion at which a liquid container is set, the liquid container having a liquid chamber that contains liquid,
 - a head member having a nozzle,
- a liquid way that can communicate with the liquid chamber of the liquid container set at the container-setting portion and the nozzle,
- a liquid discharging unit that can cause the liquid to be discharged from the nozzle, and a liquid discharging controller that can control the liquid discharging unit based on information about sedimentation-property of the liquid in the liquid chamber and information about sedimentation-state of the liquid in the liquid chamber.
 - 2. (original): A liquid jetting apparatus according to claim 1, further comprising a clock component that knows a present time, and
- a sedimentation-state acquiring unit that can acquire the information about sedimentationstate of the liquid in the liquid chamber,

wherein

the information about sedimentation-state of the liquid in the liquid chamber is information about a point of time that is a standard for judgement of the sedimentation-state,

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the liquid discharging controller has:

a calculating part that can calculate a passed time until the present time based on the

information about a point of time that is a standard for judgement of the sedimentation-state, and

a main controlling part that can control the liquid discharging unit based on the passed

time.

3. (original): A liquid jetting apparatus according to claim 2, wherein:

the point of time that is a standard for judgement of the sedimentation-state is a point of

time when the liquid container was manufactured.

4. (original): A liquid jetting apparatus according to claim 3, wherein:

the information about the point of time when the liquid container was manufactured is a

date when the liquid container was manufactured.

5. (original): A liquid jetting apparatus according to claim 2, wherein:

the point of time that is a standard for judgement of the sedimentation-state is a point of

time when the liquid container was set at the container-setting portion.

6. (original): A liquid jetting apparatus according to claim 5, wherein:

the information about the point of time when the liquid container was set at the container-

setting portion is stored in a storage unit provided in the liquid container, and

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the sedimentation-state acquiring unit is adapted to read out the information stored in the storage unit.

7. (original): A liquid jetting apparatus according to claim 2, wherein:

the point of time that is a standard for judgement of the sedimentation-state is a point of time when the liquid was jetted previous time.

8. (original): A liquid jetting apparatus according to claim 2,

wherein:

the point of time that is a standard for judgement of the sedimentation-state is a point of time when the liquid container was stirred previous time.

(original): A liquid jetting apparatus according to claim 2, 9.

wherein:

a liquid-consumption totaling unit that can total a liquid consumption from the nozzle,

and

a liquid-end determining unit that can determine a liquid end based on the information

about a point of time that is a standard for judgement of the sedimentation-state and the liquid

consumption.

10. (original): A liquid jetting apparatus according to claim 9, wherein:

the liquid-end determining unit has:

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a calculating part that can calculate a passed time until the present time based on the information about a point of time that is a standard for judgement of the sedimentation-state, and a main determining part that can determine the liquid end based on the passed time.

11. (original): A liquid jetting apparatus according to claim 10, wherein:

the main determining part is adapted to determine the liquid end correspondingly to a smaller liquid consumption when the passed time is longer.

12. (original): A liquid jetting apparatus according to claim 1, wherein:

the liquid discharging unit is a cleaning unit that can cause the liquid to be absorbed from the nozzle.

13. (original): A liquid jetting apparatus according to claim 1, wherein:

the liquid discharging unit is a flushing unit that can cause the liquid to be jetted from the nozzle.

14. (original): A liquid jetting apparatus according to claim 1,

wherein:

the liquid container contains the liquid by containing a foam material filled with the liquid.

15. (original): A liquid jetting apparatus according to claim 1, wherein:

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the liquid contained in the liquid container is ink including pigment.

16. (original): A liquid jetting apparatus according to claim 1, wherein:

the liquid container further has a second liquid chamber that contains second liquid,

the head member further has a second nozzle,

the apparatus further comprises a second liquid way that can communicate with the

second liquid chamber of the liquid container set at the container-setting portion and the second

nozzle,

the apparatus further comprises a second liquid discharging unit that can cause the second

liquid to be discharged from the second nozzle, and

the liquid discharging controller can control the second liquid discharging unit based on

information about sedimentation-state of the second liquid in the second liquid chamber.

17-39. (canceled).

40. (previously presented): A liquid jetting apparatus comprising;

a container-setting portion at which a liquid container is set, the liquid container having a

liquid chamber that contains liquid;

a head member having a nozzle;

a liquid way that can communicate with the liquid chamber of the liquid container set at

the container-setting portion and the nozzle;

a liquid discharging unit that can cause the liquid to be discharged from the nozzle;

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a liquid discharging controller that can control the liquid discharging unit based on information about sedimentation-state of the liquid in the liquid chamber;

a clock component that knows a present time;

a sedimentation-state acquiring unit that can acquire the information about sedimentationstate of the liquid in the liquid chamber, and

the liquid discharging controller having:

a calculating part that can calculate a passed time until the present time based on the information about a point of time that is a standard for judgment of the sedimentation-state, and a main controlling part that can control the liquid discharging unit based on the passed time.

wherein

the information about sedimentation-state of the liquid in the liquid chamber is information about a point of time that is a standard for judgment of the sedimentation-state, and wherein the point of time that is a standard for judgment of the sedimentation-state is a point of time when the liquid container was stirred previous time.

- 41. (previously presented): A liquid jetting apparatus comprising;
- a container-setting portion at which a liquid container is set, the liquid container having a liquid chamber that contains liquid;
 - a head member having a nozzle;
- a liquid way that can communicate with the liquid chamber of the liquid container set at the container-setting portion and the nozzle;

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a liquid discharging unit that can cause the liquid to be discharged from the nozzle;

a liquid discharging controller that can control the liquid discharging unit based on information about sedimentation-state of the liquid in the liquid chamber;

a clock component that knows a present time;

a sedimentation-state acquiring unit that can acquire the information about sedimentationstate of the liquid in the liquid chamber;

a liquid-consumption totaling unit that can total a liquid consumption from the nozzle, and

a liquid-end determining unit that can determine a liquid end based on the information about a point of time that is a standard for judgment of the sedimentation-state and the liquid consumption

and the liquid discharging controller further having:

a calculating part that can calculate a passed time until the present time based on the information about a point of time that is a standard for judgment of the sedimentation-state, and

a main controlling part that can control the liquid discharging unit based on the passed time;

wherein

the information about sedimentation-state of the liquid in the liquid chamber is information about a point of time that is a standard for judgment of the sedimentation-state.

42. (previously presented): A liquid jetting apparatus according to claim 41, wherein: the liquid-end determining unit further includes:

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a calculating part that can calculate a passed time until the present time based on the information about a point of time that is a standard for judgment of the sedimentation-state, and a main determining part that can determine the liquid end based on the passed time.

- (previously presented): A liquid jetting apparatus according to claim 42, wherein: 43. the main determining part is adapted to determine the liquid end correspondingly to a smaller liquid consumption when the passed time is longer.
 - (previously presented): A liquid jetting apparatus comprising: 44.

a container-setting portion at which a liquid container is set, the liquid container having a liquid chamber that contains liquid and a storage that stores information about sedimentationstate of the liquid in the liquid chamber, the liquid including a sinkable constituent,

a head member having a nozzle,

a liquid way that can communicate with the liquid chamber of the liquid container set at the container-setting portion and the nozzle, and

a sedimentation-state acquiring unit that can acquire the information about sedimentationstate of the liquid in the liquid chamber from the storage unit,

and wherein

the information about sedimentation-state of the liquid in the liquid chamber is information about a point of time that is a standard for judgment of the sedimentation-state, and wherein

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the point of time that is a standard for judgment of the sedimentation-state is a point of time when the liquid container was stirred previous time.

45. (previously presented): A liquid jetting apparatus according to claim 44, further comprising

a clock component that knows a present time, and

a calculating part that can calculate a passed time until the present time based on the information about a point of time that is a standard for judgment of the sedimentation-state.

46. (previously presented): A liquid jetting apparatus according to claim 45, further comprising

a liquid discharging unit that can cause the liquid to be discharged from the nozzle, and a main controlling part that can control the liquid discharging unit based on the passed time.

47. (previously presented): A liquid jetting apparatus according to claim 46, wherein: the main controlling part is adapted to control the liquid discharging unit when the liquid container is replaced with a new liquid container in such a manner that a volume of the liquid to be initially discharged is larger when the passed time calculated based on the information about sedimentation-state of the liquid in the liquid chamber of the new liquid container set at the container-setting portion is longer.

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48. (previously presented): A liquid jetting apparatus according to claim 44, further comprising

a liquid discharging unit that can cause the liquid to be discharged from the nozzle, and a main controlling part that can estimate the sedimentation-state based on the information about a point of time that is a standard for judgment of the sedimentation-state and information about easiness of sedimentation of the sinkable constituent in the liquid, and that can control the liquid discharging unit based on the estimated sedimentation-state.

49. (previously presented): A liquid jetting apparatus comprising:

a container-setting portion at which a liquid container is set, the liquid container having a liquid chamber that contains liquid and a storage that stores information about sedimentation-state of the liquid in the liquid chamber, the liquid including a sinkable constituent;

- a head member having a nozzle;
- a liquid way that can communicate with the liquid chamber of the liquid container set at the container-setting portion and the nozzle;
 - a liquid discharging unit that can cause the liquid to be discharged from the nozzle,
- a liquid discharging controller that can control the liquid discharging unit based on information about sedimentation-property of the liquid in the liquid chamber and information about sedimentation-state of the liquid in the liquid chamber;
 - a clock component that knows a present time;
- a sedimentation-state acquiring unit that can acquire the information about sedimentationstate of the liquid in the liquid chamber from the storage unit;

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the liquid discharging unit further including:

a calculating part that can calculate a passed time until the present time based on the information about a point of time that is a standard for judgment of the sedimentation-state;

and

a main controlling part that can control the liquid discharging unit based on the passed time

wherein,

the information about sedimentation-state of the liquid in the liquid chamber is information about a point of time that is a standard for judgment of the sedimentation-state, and the point of time that is a standard for judgment of the sedimentation-state is a point of time when the liquid container was set at the container-setting portion.

50. (previously presented): A liquid jetting apparatus comprising:

a container-setting portion at which a liquid container is set, the liquid container having a liquid chamber that contains liquid, the liquid including a sinkable constituent;

a head member having a nozzle;

a liquid way that can communicate with the liquid chamber of the liquid container set at the container-setting portion and the nozzle;

a sedimentation-state acquiring unit that can acquire the information about sedimentationstate of the liquid in the liquid chamber;

a clock component that knows a present time;

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a calculating part that can calculate a passed time until the present time based on the information about a point of time that is a standard for judgment of the sedimentation-state;

a liquid discharging unit that can cause the liquid to be discharged from the nozzle;

a main controlling part that can control the liquid discharging unit based on the passed

time;

wherein

the information about sedimentation-state of the liquid in the liquid chamber is information about a point of time that is a standard for judgment of the sedimentation-state, and wherein, the point of time that is a standard for judgment of the sedimentation-state is a point of time when the liquid container was set at the container-setting portion.

51. (previously presented): A liquid jetting apparatus according to claim 50, wherein: the main controlling part is adapted to control the liquid discharging unit when the liquid container is replaced with a new liquid container in such a manner that a volume of the liquid to be initially discharged is larger when the passed time calculated based on the information about sedimentation-state of the liquid in the liquid chamber of the new liquid container set at the container-setting portion is longer.

52. (new): A liquid jetting apparatus comprising:

a container-setting portion at which a liquid container is set, the liquid container having a liquid chamber that contains liquid, a head member having a nozzle,

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a liquid way that can communicate with the liquid chamber of the liquid container set at the container-setting portion and the nozzle,

a liquid discharging unit that can cause the liquid to be discharged from the nozzle, and

a liquid discharging controller that can control the liquid discharging unit based on information about sedimentation property of the liquid in the liquid chamber.